

MEMORANDUM FOR: Gustin, Cothorn & Tucker, Inc.

FROM: George E. Leigh  
Contracting Officer's Technical Representative

SUBJECT: PROJECT INSTRUCTIONS:  
Observations for Mecklenburg County Height  
Modernization Survey

This document contains specific instructions to accomplish the final stages of the following height modernization survey:

1. Project Name: Mecklenburg County Height Mod, 2003
2. Geographic Limits: Mecklenburg County, North Carolina
3. Project ID Number: GPS-1872
- 4a. Size of Project: 1448 square kilometers
- 4b. Number of Points: approximately 73 stations
- 4c. LIDAR Project Area: None.
- 4d. LIDAR Parameters: None.
5. Points of Contact (e-mail both):

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This portion of the project shall include GPS observations, data processing, analysis, adjustment, and submittal in specified formats, and preparing reports. Reconnaissance mark recovery, and mark setting have already been completed under previous instructions dated 08 December 2003.

Detailed instructions are provided in [Scope of Work: Height Modernization and LIDAR Surveys](#) (SOW) v9, dated April 24, 2002. Deviations from this SOW include the following:

- ▶ The 30-minute observations are extended to 45 minutes.
- ▶ All tripods shall be tested for stability, plumb alignment (straightness of center pole), and height verification at the beginning and end of the project. All tripods shall be examined for stability with each use. Ensure that hinges, clamps, and feet are secure and in good repair. Also, check the position of the bubble in the circular vial.
- ▶ Use CD-ROMs instead of Zip disks for submitting data.

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*Project Instructions for Height Modernization Survey, 27 February 2004*

- ▶ Use ITRF2000 coordinates for all vector processing. If ITRF2000 coordinates are not available for the reference stations, transform NAD83 coordinates with NGS program HTDP.
- ▶ Use the U.S. Survey foot (3.28083333333 feet = 1 meter) for any length conversions.
- ▶ The Contractor shall submit to NGS the initial minimally constrained adjustment before continuing with additional processing. NGS will review and comment on this adjustment as soon as possible, normally within 5 working days.
- ▶ The Contractor shall have a registered North Carolina surveyor oversee all work. See <http://www.ncbels.org/>